



Permit to Operate and Part 70 Minor Modification 13163

Page 1 of 11

EQUIPMENT OWNER:

ExxonMobil Production Company

300500

EQUIPMENT OPERATOR:

ExxonMobil Production Company

EQUIPMENT LOCATION:

12000 Calle Real , Goleta

STATIONARY SOURCE/FACILITY:

Exxon - SYU Project
POPCO

SSID: 01482
FID: 03170

EQUIPMENT DESCRIPTION:

T-601 is a wastewater holding tank that receives water from the Sour Water Stripper (SWS) treatment system, as well as water from the boiler blowdown and boiler feed water systems. A dual carbon canister control system on tank T-601 consists of two Calgon VENTSORB canisters in series, each containing 180 lb of Calgon AP4-60 activated carbon, Calgon Centaur LAD activated carbon, or equivalent to satisfy the requirements of Rule 325.

PROJECT/PROCESS DESCRIPTION:

For a description of the POPCO Gas Plant, see PT70 Reeval 8092 R7.

CONDITIONS:

9.A Standard Administrative Conditions

- A.1 **Condition Acceptance.** Acceptance of this operating permit by POPCO shall be considered as acceptance of all terms, conditions, and limits of this permit. [Re: ATC 9047]

- A.2 **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.* [Re: ATC 9047]
- A.3 **Defense of Permit.** POPCO agrees, as a condition of the issuance and use of this permit, to defend at its sole expense any action brought against the APCD because of issuance of this permit. POPCO shall reimburse the APCD for any and all costs including, but not limited to, court costs and attorney's fees which the APCD may be required by a court to pay as a result of such action. The APCD may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve POPCO of its obligation under this condition. The APCD shall bear its own expenses for its participation in the action. [Re: ATC 9047]
- A.4 **Reimbursement of Costs.** All reasonable expenses, as defined in APCD Rule 210, incurred by the APCD, APCD contractors, and legal counsel for the activities listed below that follow the issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by POPCO as required by Rule 210. Reimbursable activities include work involving: Part 70 Federal Operating permit program, CEMS, modeling/AQIA, ambient air monitoring, DAS and data telemetry. Notwithstanding the above, DAS system operation and maintenance shall be assessed fees based on a fee schedule consistent with Section 9.C of this permit. [Re: ATC 9047, PTO 8092, PTO 9215, ATC 9693]
- A.5 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the APCD or its agents, POPCO shall make such records available or provide access to such facilities upon notice from the APCD. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A. [Re: ATC 9047]
- A.6 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment. [Re: ATC 9047, PTO 8092, PTO 9215, ATC/PTO 9471, ATC 9471-1, ATC 9487, ATC 9675]
- A.7 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the APCD's project file) and the APCD's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit. [Re: ATC 9047, PTO 8092, ATC/PTO 9471, ATC 9471-1, ATC 9487, ATC 9675, ATC 9693]
- A.8 **Consistency with State and Local Permits.** Nothing in this permit shall relax any air pollution control requirement imposed on the project by the County of Santa Barbara in the POPCO Project Final Development Plan No. 93-FDP-015 and any subsequent modifications. [Re: ATC 9047]
- A.9 **Equipment Maintenance.** All equipment permitted herein shall be properly maintained and kept in good working condition in accordance with the equipment manufacturer specifications at all times. [Re: ATC 9047, PTO 9215, ATC 9693]

A.10 **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein. [Re: ATC 9047]

A.11 **Complaint Response.** POPCO shall provide the APCD with the current name and position, address and 24-hour phone number of a contact person who shall be available to respond to complaints from the public concerning nuisance or odors. This contact person shall aid the APCD staff, as requested by the APCD, in the investigation of any complaints received, POPCO shall take corrective action, to correct the facility activity which is reasonably believed to have caused the complaint. [Re: ATC 9047]

A.12 **Compliance with Permit Conditions.**

- (a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.
- (b) This permit does not convey property rights or exclusive privilege of any sort.
- (c) Any permit noncompliance with sections 9.A, 9.B, or 9.C constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- (d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.
- (f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
 - (i) compliance with the permit, or
 - (ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.
- (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible.

[Re: ATC 9047, 40 CFR Part 70.6.(a)(6), APCD Rule 1303.D.1]

A.13 **Emergency Provisions.** The permittee shall comply with the requirements of the APCD, Rule 505 (Upset/Breakdown rule) and/or APCD Rule 1303.F, whichever is applicable to the emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the APCD, in writing, a "notice of emergency" within two (2) working days of the emergency. The "notice of emergency" shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [Re: 40 CFR 70.6(g), APCD Rule 1303.F]

A.14 Compliance Plans.

- (a) The permittee shall comply with all federally enforceable requirements that become applicable during the permit term in a timely manner.
- (b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards.

[*Re: APCD Rule 1302.D.2*]

A.15 Right of Entry. The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:

- (a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
- (b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;
- (c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. Monitoring of emissions can include source testing.

[*Re: APCD Rule 1303.D.2*]

A.16 Severability. The provisions of this Permit to Operate are severable and if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [*Re: APCD Rules 103 and 1303.D.1, ATC 9047, PTO 8092, PTO 9215, ATC/PTO 9471, ATC 9471-1, ATC 9487, ATC 9675, ATC 9693*]

A.17 Payment of Fees. The permittee shall reimburse the APCD for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the APCD and the USEPA pursuant to section 502(a) of the Clean Air Act. [*Re: APCD Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6(a)(7)*]

A.18 Prompt Reporting of Deviations. The permittee shall submit a written report to the APCD documenting each and every deviation from the requirements of this permit or any applicable federal requirements within seven (7) days after discovery of the violation, but not later than six (6) months after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation, 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to APCD in accordance with Rule 505, Breakdown Conditions, or Rule 1303.F Emergency Provisions. [*APCD Rule 1303.D.1, 40 CFR 70.6(a) (3)*]

A.19 Reporting Requirements/Compliance Certification. The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. These reports shall

be submitted on APCD approved forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1st and March 1st, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Compliance Verification Report" condition in Section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [Re: APCD Rules 1303.D.1, 1302.D.3, 1303.2.c]

A.20 **Federally Enforceable Conditions.** Each federally enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the APCD-only enforceable section of this permit are federally enforceable or subject to the public/USEPA review. [Re: CAAA § 502(b)(6), 40 CFR 70.6(b)]

A.21 **Recordkeeping Requirements.** The permittee shall maintain records of required monitoring information that include the following:

- (a) The date, place as defined in the permit, and time of sampling or measurements;
- (b) The date(s) analyses were performed;
- (c) The company or entity that performed the analyses;
- (d) The analytical techniques or methods used;
- (e) The results of such analyses; and
- (f) The operating conditions as existing at the time of sampling or measurement;

The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the APCD upon request. [Re: APCD Rule 1303.D.1.f, 40 CFR 70.6(a)(3)]

A.22 **Conditions for Permit Reopening.** The permit shall be reopened and revised for cause under any of the following circumstances:

- (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.
- (b) Inaccurate Permit Provisions: If the APCD or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the

emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

- (c) Applicable Requirement: If the APCD or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- (d) Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists.
- (e) If a permit is reopened, the expiration date does not change. Thus, if the permit is reopened, and revised, then it will be reissued with the expiration date applicable to the re-opened permit.

[Re: 40 CFR 70.7(f), 40 CFR 70.6(a)]

A.23 **Credible Evidence.** Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding. [Re: 40 CFR 52.12(c)]

A.24 **Risk Management Plan – Section 112r.** POPCO shall comply with the requirements of 40 CFR 68 on chemical accident prevention provisions. The annual compliance certification must include a statement regarding compliance with this part, including the registration and submission of the risk management plan (RMP). [Re: 40 CFR 68]

9.B Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. These conditions are federally enforceable. These rules apply to the equipment and operations at the POPCO facility as they currently exist. Compliance with these requirements is discussed in Section 3.4.2 of PTO 8092 R7. In the case of a discrepancy between the wording of a condition and the applicable APCD rule, the wording of the rule shall control.

B.1 **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of APCD Rule 303. [Re: APCD Rule 301]

- B.2 **Visible Emissions (Rule 302).** POPCO shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:
- (a) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or
 - (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2.(a) above.
 - (c) POPCO shall determine compliance with the requirements of this Condition/Rule and Condition C.39, as specified below: [Re: *APCD Rule 302*]
- B.3 **Nuisance (Rule 303).** No pollutant emissions from any source at POPCO shall create nuisance conditions. No operations shall endanger health, safety or comfort, nor shall they damage any property or business. [Re: *APCD Rule 303*]
- B.4 **Organic Solvents (Rule 317).** POPCO shall comply with the emission standards listed in Section B of Rule 317. Compliance with this condition shall be based on POPCO's compliance with the *Solvent Usage* condition in this permit. [Re: *APCD Rule 317*]
- B.5 **Solvent Cleaning Operations (Rule 321).** POPCO shall comply with the operating requirement, equipment requirements and emission control requirements for all solvent cleaners subject to this Rule. Compliance shall be based on APCD inspection of the existing cold solvent cleaner and a thorough ATC application review for future solvent cleaners (if any). [Re: *APCD Rule 321*]
- B.6 **Metal Surface Coating Thinner and Reducer (Rule 322).** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on the *Solvent Usage* condition in this permit and facility inspections. [Re: *APCD Rule 322*]
- B.7 **Architectural Coatings (Rule 323).** POPCO shall comply with the emission standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323. Compliance with this condition shall be based on the *Solvent Usage* condition in this permit and facility inspections. [Re: *APCD Rule 323*]
- B.8 **Disposal and Evaporation of Solvents (Rule 324).** POPCO shall not dispose through atmospheric evaporation more than one and a half gallons of any photochemically reactive solvent per day. Compliance with this condition shall be based on the *Solvent Usage* condition in this permit and facility inspections. [Re: *APCD Rule 324*]
- B.9 **Adhesives and Sealants (Rule 353).** The permittee shall not use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, unless the permittee complies with the following:
- (a) Such materials used are purchased or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less; or alternately

- (b) When the permittee uses such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353, Section B.1, the total reactive organic compound emissions from the use of such material shall not exceed 200 pounds per year unless the substances used and the operational methods comply with Sections D, E, F, G, and H of Rule 353. Compliance shall be demonstrated by recordkeeping in accordance with Section B.2 and/or Section O of Rule 353. [Re: APCD Rule 353]

9.C *Equipment-Specific Conditions*

Federally enforceable conditions, including emissions and operations limits, monitoring, recordkeeping and reporting are included in this section for each specific group of equipment as well as other non-generic requirements.

The conditions below replace the provisions of condition D.1 in PTO 8092-R7 which apply to wastewater tank T-601. The attached emission tables supersede those of PTO 8092-R7. All other conditions in PTO 8092-R7 remain in full force and effect.

(a) Emission Limits:

- (i) Mass emissions from the tank shall not exceed the limits listed in Tables 5.3 and 5.4 of PTO 13163.

(b) Operational Limits:

- (i) Wastewater tank T-601 shall be equipped with two Calgon VENTSORB canisters in series, each containing 180 lb of Calgon AP4-60 activated carbon, Calgon Centaur LAD activated carbon, or APCD-approved equivalent to reduce the ROC emissions from the tank by at least 90% by weight. Compliance with this limit shall be assessed through the source testing condition in this permit.
- (ii) The tank cover and carbon canister system shall be leak-free, properly installed, and properly maintained.
- (iii) The hydrogen sulfide concentration in the exhaust to the atmosphere shall not exceed 13 ppmv.
- (iv) The carbon in the upstream canister shall be replaced: (a) within one week of indications the carbon is not performing as designed, (b) within one week of monitoring if the ROC concentration in the exhaust of the upstream canister is greater than 200 ppmv as methane or greater than the range of the FID, or (c) within one year of the last carbon replacement, whichever is sooner. The carbon in the downstream canister shall be replaced: (a) within 24 hours of indications the carbon is not performing as designed, (b) within 24 hours of monitoring if the ROC concentration in the exhaust of the downstream canister is greater than 200 ppmv as methane or

greater than the range of the FID, or (c) within one year of the last carbon replacement, whichever is sooner.

- (v) If the upstream canister must be replaced, it may be replaced with the downstream canister. The carbon in the downstream canister shall be as new as, or newer than, the carbon in the upstream canister at all times.

(c) Monitoring:

- (i) ExxonMobil shall monitor the exhaust of each carbon canister serving wastewater tank T-601 once per week in accordance with EPA Method 21, or other APCD approved methods. ExxonMobil shall take one reading at the exhaust of each carbon canister for THC and one reading for methane. If using an FID and charcoal filter, ExxonMobil shall replace the charcoal filter on the FID prior to each methane reading. The ROC concentration at the exhaust of each carbon canister shall be reported as the difference between the THC and methane concentrations. THC or methane concentrations beyond the measurable range of the instrument shall be assumed to be greater than 200 ppmv as methane.
 - (ii) ExxonMobil shall monitor the exhaust of the final carbon canister once per week for hydrogen sulfide using Draeger tubes or by taking a tedlar grab bag sample per EPA Method 18 and analyzing it within 24 hours of sample collection using GC-FPD or other APCD-approved analysis method. If the Draeger tube reading indicates a hydrogen sulfide concentration greater than 10 ppmv, a tedlar grab bag sample shall be taken per EPA Method 18 and analyzed within 24 hours of sample collection using GC-FPD or other APCD-approved analysis method.
- (d) Recordkeeping: The wastewater tanks shall meet the requirements of APCD Rule 325, Section F. In addition, ExxonMobil shall maintain records of the information listed below:
- (i) For each carbon canister adsorber, the results of weekly ROC and H₂S exhaust monitoring, the dates of any carbon change-out and the quantity and type of carbon recharged to the canister shall be recorded monthly in a log.
- (e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the APCD. The report must list all data required in the recordkeeping requirement, and may be included in the *Compliance Verification Report* required by PTO 8092.
- (f) Source Testing: The following source testing provisions shall apply:
- (i) Source test shall be conducted for ROC and hydrogen sulfide once every two years.
 - (ii) The permittee shall submit a written source test plan to the APCD for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the APCD's *Source Test Procedures Manual* (revised

May 1990 and any subsequent revisions). The permittee shall obtain written APCD approval of the source test plan prior to commencement of source testing. The APCD shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when APCD personnel may observe the test.

- (iii) Source test results shall be submitted to the APCD within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates in Table 5.1-3 and applicable permit conditions, rules and NSPS (if applicable). All APCD costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by APCD Rule 210.
- (iv) A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain APCD approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test can not be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the APCD. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the APCD. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without APCD's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the APCD by the close of the business day following the scheduled test day.

The timelines in (ii), (iii), and (iv) may be extended for good cause provided a written request is submitted to the APCD at least three (3) days in advance of the deadline, and approval for the extension is granted by the APCD.

D. APCD-Only Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the APCD and the State of California. These conditions are issued pursuant to APCD Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*).

D.1 Permit Activation. All aspects of this permit are enforceable by the APCD and the State of California upon the issuance date stamped below. The Part 70 aspects of this permit are not final until:

- (a) The USEPA has provided written comments to the APCD and these comments require no modification to this permit. The APCD will issue a letter stating that this permit is a final Part 70 permit. The effective date that this permit will be considered a final Part 70 permit will be the date stamped on the APCD's letter.
- (b) After the USEPA has provided the APCD written comments that require a modification to this permit, the APCD will modify this permit to address the USEPA's comments and issue the Part 70 permit as final. The re-issued permit will supersede this permit in its entirety.



AIR POLLUTION CONTROL OFFICER

JUL 23 2010

DATE

Attachments:

- Permit Equipment List(s)
- Revised Facility Emission Tables
- Permit Evaluation for Permit to Operate13163

Notes:

- Reevaluation Due Date: June 12, 2012.

Equipment List for Permit to Operate and Part 70 Minor Modification 13163

PERMIT EQUIPMENT LIST

PTO 13163 / FID: 03170 POPCO / SSID: 01482

A PERMITTED EQUIPMENT

1 Waste Liquid Storage Tank (601)

| | | | |
|-------------------------|----------------|----------------------|--|
| <i>Device ID #</i> | 103103 | <i>Device Name</i> | Waste Liquid Storage Tank (601) |
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | 91800.00 Gallons |
| <i>Manufacturer</i> | | <i>Operator ID</i> | T-601 |
| <i>Model</i> | | <i>Serial Number</i> | |
| <i>Location Note</i> | D-972-28Z | | |
| <i>Device</i> | P&ID D-972-28Z | | |
| <i>Description</i> | | | |

2 T-601 Carbon Canisters

| | | | |
|-------------------------|---|----------------------|-------------------------------|
| <i>Device ID #</i> | 113429 | <i>Device Name</i> | T-601 Carbon Canisters |
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | 100.00 Cubic Feet/Minute |
| <i>Manufacturer</i> | Calgon | <i>Operator ID</i> | |
| <i>Model</i> | Ventsorb | <i>Serial Number</i> | |
| <i>Location Note</i> | | | |
| <i>Device</i> | Two 55 gallon canisters, each containing 180 lbs of activated carbon. | | |
| <i>Description</i> | Connected in series. | | |

Table 5.1-3: Hourly and Daily Emissions
ExxonMobil POPCO Gas Plant: PTO 13163

| Equipment Item | Description | APCD ID# | NOx | | | ROC | | | CO | | | SOx | | | PM | | | PM10 | | | Federal |
|--|---|----------|-------|--------|-------|--------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|----------------|---------|
| | | | lb/hr | lb/day | lb/hr | lb/hr | lb/day | lb/hr | lb/day | lb/hr | lb/day | lb/hr | lb/day | lb/hr | lb/day | lb/hr | lb/day | lb/hr | lb/day | Enforceability | |
| Fugitive Components – Gas/Light Liquid Service | Valves - Unsafe | 7070 | - | - | 0.54 | 12.87 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Valves - Bellows / Background ppmv | 7066 | - | - | 0.00 | 0.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Valves - Category B | 7068 | - | - | 4.78 | 114.70 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Valves - Category C | 106397 | - | - | 0.95 | 22.68 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Valves - Category F | 9712 | - | - | 0.39 | 9.33 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Valves - Category J | 7067 | - | - | 1.84 | 44.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Flanges/Connections - Accessible/Inaccessible | 7071 | - | - | 1.49 | 35.75 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Flanges/Connections - Unsafe | 7074 | - | - | 0.64 | 15.34 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Flanges/Connections - Category B | 7072 | - | - | 0.68 | 16.34 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Flanges/Connections - Category C | 7073 | - | - | 0.25 | 6.08 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Compressor Seals - To VRS | 7079 | - | - | 0.00 | 0.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | PSV - To Atm/Flare | 7075 | - | - | 0.89 | 21.45 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Pump Seals - Single | 7081 | - | - | 0.02 | 0.37 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Pump Seals - Dual/Tandem | 7080 | - | - | 0.01 | 0.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | NE | |
| | Sub-Total: | | | 12.47 | | | 299.35 | | | | | | | | | | | | FE | | |
| Tanks | Methanol Tank (T-111) | 102620 | | | | 14.82 | 14.82 | | | | | | | | | | | | | A | |
| | Wastewater Tank (T-601) | 103103 | | | | 0.04 | 0.88 | | | | | | | | | | | | | A | |
| | Wastewater Tank (T-807) | 103104 | | | | 0.01 | 0.21 | | | | | | | | | | | | | A | |
| Internal Combustion Engines | FW Pump A | 2359 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | FW Pump B | 2356 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | Emergency Electrical Generator | 2358 | 1.61 | 3.22 | 0.13 | 0.26 | 0.35 | 0.69 | 0.04 | 0.11 | 0.23 | 0.02 | 0.04 | 0.11 | 0.23 | 0.11 | 0.23 | 0.11 | 0.23 | A | |
| | Emergency Electrical Generator Instr Air | 2357 | 3.44 | 6.88 | 0.27 | 0.55 | 0.74 | 1.48 | 0.09 | 0.24 | 0.49 | 0.04 | 0.09 | 0.24 | 0.49 | 0.24 | 0.49 | 0.24 | 0.49 | A | |
| | Cleaning/Degreasing | 8662 | | | | 0.05 | 1.10 | | | | | | | | | | | | | | |
| Solvent Usage | | | | | | | | | | | | | | | | | | | | | |

Notes

FE = Federally Enforceable
NE = Not Enforceable
A = APCD-Only Enforceable

Table 5.1-4: Quarterly and Annual Emissions
ExxonMobil POPCO Gas Plant: PTO 13163

| Equipment Item | Description | APCD ID# | NOx | | ROC | | CO | | SOx | | PM | | PM10 | | Federal Enforceability |
|--|---|----------|-------|------|-------|-------|------|------|------|------|------|------|------|------|------------------------|
| | | | TPQ | TPY | TPQ | TPY | TPQ | TPY | TPQ | TPY | TPQ | TPY | TPQ | TPY | |
| Fugitive Components - Gas/Light Liquid Service | Valves - Unsafe | 7070 | - | - | 0.59 | 2.35 | - | - | - | - | - | - | - | - | NE |
| | Valves - Bellows / Background ppmv | 7066 | - | - | 0.00 | 0.00 | - | - | - | - | - | - | - | - | NE |
| | Valves - Category B | 7068 | - | - | 5.23 | 20.93 | - | - | - | - | - | - | - | - | NE |
| | Valves - Category C | 106397 | - | - | 1.03 | 4.14 | - | - | - | - | - | - | - | - | NE |
| | Valves - Category F | 9712 | - | - | 0.43 | 1.70 | - | - | - | - | - | - | - | - | NE |
| | Valves - Category J | 7067 | - | - | 2.02 | 8.07 | - | - | - | - | - | - | - | - | NE |
| | Flanges/Connections - Accessible/Inaccessible | 7071 | - | - | 1.63 | 6.53 | - | - | - | - | - | - | - | - | NE |
| | Flanges/Connections - Unsafe | 7074 | - | - | 0.70 | 2.80 | - | - | - | - | - | - | - | - | NE |
| | Flanges/Connections - Category B | 7072 | - | - | 0.75 | 2.98 | - | - | - | - | - | - | - | - | NE |
| | Flanges/Connections - Category C | 7073 | - | - | 0.28 | 1.11 | - | - | - | - | - | - | - | - | NE |
| | Compressor Seals - To VRS | 7079 | - | - | 0.00 | 0.00 | - | - | - | - | - | - | - | - | NE |
| | PSV - To Atm/Flare | 7075 | - | - | 0.98 | 3.91 | - | - | - | - | - | - | - | - | NE |
| | Pump Seals - Single | 7081 | - | - | 0.02 | 0.07 | - | - | - | - | - | - | - | - | NE |
| | Pump Seals - Dual/Tandem | 7080 | - | - | 0.01 | 0.04 | - | - | - | - | - | - | - | - | NE |
| Sub-Total: | | | 13.66 | | 54.63 | | | | | | | | | | FE |
| Tanks | Methanol Tank (T-111) | 102620 | | | 0.01 | 0.01 | | | | | | | | | A |
| | Wastewater Tank (T-601) | 103103 | | | 0.04 | 0.16 | | | | | | | | | A |
| | Wastewater Tank (T-807) | 103104 | | | 0.01 | 0.04 | | | | | | | | | A |
| Internal Combustion Engines | FW Pump A | 2359 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | FW Pump B | 2356 | - | - | - | - | - | - | - | - | - | - | - | - | |
| | Emergency Electrical Generator | 2358 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | A |
| | Emergency Electrical Generator Instr Air | 2357 | 0.03 | 0.03 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | A |
| Solvent Usage | Cleaning/Degreasing | 8662 | | | 0.05 | 0.2 | | | | | | | | | FE |

Notes

FE = Federally Enforceable
NE = Not Enforceable
A = APCD-Only Enforceable

Table 5.2: Total Permitted Facility Emissions
ExxonMobil POPCO Gas Plant: PTO 13163

A. Hourly

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|------|-------|------|---------------|------|------|
| Boiler B-801A | 1.48 | 0.04 | 2.99 | 0.11 | 0.37 | 0.35 |
| Boiler B-801B | 1.48 | 0.04 | 2.99 | 0.11 | 0.37 | 0.35 |
| Stretford Tailgas Incineration | 0.20 | 0.01 | 0.41 | See SRU Below | 0.05 | 0.05 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 0.10 | 0.00 | | 5.44 | 0.00 |
| Combined B-801A/B Stack Emissions = | 3.15 | 0.19 | 6.40 | 5.67 | 0.79 | 0.75 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 0.04 | 0.33 | 0.03 | 0.01 | 0.00 | 0.00 |
| Planned Continuous Flaring | 0.13 | 0.14 | 0.01 | 0.04 | 0.00 | 0.00 |
| Sulfinol TEG Reboiler | 0.21 | 0.01 | 0.17 | 0.03 | 0.02 | 0.02 |
| Fugitive Components - Gas | -- | 12.47 | -- | -- | -- | -- |
| Tanks | -- | 14.86 | -- | -- | -- | -- |
| Internal Combustion Engines | 5.05 | 0.40 | 1.09 | 0.07 | 0.36 | 0.36 |
| Solvent Usage | -- | 0.05 | -- | -- | -- | -- |
| Totals (lb/hr) | 8.59 | 28.45 | 7.70 | 5.81 | 1.16 | 1.12 |

B. Daily

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|-------|--------|--------|--------|-------|-------|
| Boiler B-801A | 35.42 | 0.96 | 71.83 | 2.72 | 8.84 | 8.39 |
| Boiler B-801B | 35.42 | 0.96 | 71.83 | 2.72 | 8.84 | 8.39 |
| Stretford Tailgas Incineration | 4.86 | 0.13 | 9.85 | 0.00 | 1.21 | 1.15 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 2.40 | 0.00 | 130.54 | 0.00 | 0.00 |
| Combined B-801A/B Stack Emissions = | 75.70 | 4.46 | 153.51 | 135.98 | 18.88 | 17.94 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 1.07 | 7.92 | 0.75 | 0.26 | 0.01 | 0.01 |
| Planned Continuous Flaring | 3.07 | 3.28 | 0.31 | 0.88 | 0.00 | 0.00 |
| Sulfinol TEG Reboiler | 4.94 | 0.27 | 4.13 | 0.65 | 0.38 | 0.38 |
| Fugitive Components - Gas | -- | 299.35 | -- | -- | -- | -- |
| Tanks | -- | 15.91 | -- | -- | -- | -- |
| Internal Combustion Engines | 10.11 | 0.80 | 2.18 | 0.13 | 0.72 | 0.72 |
| Solvent Usage | -- | 1.10 | -- | -- | -- | -- |
| Totals (lb/day) | 94.89 | 333.09 | 160.89 | 137.91 | 19.99 | 19.04 |

C. Quarterly

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|------|-------|-------|---------------|------|------|
| Boiler B-801A | 1.62 | 0.04 | 3.28 | 0.12 | 0.40 | 0.38 |
| Boiler B-801B | 1.62 | 0.04 | 3.28 | 0.12 | 0.40 | 0.38 |
| Stretford Tailgas Incineration | 0.22 | 0.01 | 0.45 | See SRU Below | 0.06 | 0.05 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 0.11 | 0.00 | | 5.96 | 0.00 |
| Combined B-801A/B Stack Emissions = | 3.45 | 0.20 | 7.00 | 6.20 | 0.86 | 0.82 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 0.05 | 0.36 | 0.03 | 0.01 | 0.00 | 0.00 |
| Planned Continuous Flaring | 0.14 | 0.15 | 0.01 | 0.04 | 0.00 | 0.00 |
| Planned Other Flaring | 3.88 | 2.52 | 6.99 | 0.07 | 0.27 | 0.27 |
| Unplanned Other Flaring | 0.09 | 0.06 | 0.16 | 0.02 | 0.01 | 0.01 |
| Sulfinol TEG Reboiler | 0.23 | 0.01 | 0.19 | 0.03 | 0.02 | 0.02 |
| Fugitive Components - Gas | -- | 13.66 | -- | -- | -- | -- |
| Tanks | -- | 0.06 | -- | -- | -- | -- |
| Internal Combustion Engines | 0.05 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Solvent Usage | -- | 0.05 | -- | -- | -- | -- |
| Totals (TPQ) | 7.89 | 17.09 | 14.41 | 6.39 | 1.18 | 1.13 |

D. Annual

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|-------|-------|-------|-------|------|------|
| Boiler B-801A | 6.46 | 0.18 | 13.11 | 0.50 | 1.61 | 1.53 |
| Boiler B-801B | 6.46 | 0.18 | 13.11 | 0.50 | 1.61 | 1.53 |
| Stretford Tailgas Incineration | 0.89 | 0.02 | 1.80 | 0.00 | 0.22 | 0.21 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 0.44 | 0.00 | 23.82 | 0.00 | 0.00 |
| Combined B-801A/B Stack Emissions = | 13.82 | 0.81 | 28.02 | 24.82 | 3.45 | 3.27 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 0.19 | 1.44 | 0.14 | 0.05 | 0.00 | 0.00 |
| Planned Continuous Flaring | 0.56 | 0.60 | 0.06 | 0.16 | 0.00 | 0.00 |
| Planned Other Flaring | 15.53 | 10.10 | 27.96 | 0.26 | 1.09 | 1.09 |
| Unplanned Other Flaring | 0.18 | 0.12 | 0.32 | 0.03 | 0.01 | 0.01 |
| Sulfinol TEG Reboiler | 0.90 | 0.05 | 0.75 | 0.12 | 0.07 | 0.07 |
| Fugitive Components - Gas | -- | 54.63 | -- | -- | -- | -- |
| Tanks | -- | 0.21 | -- | -- | -- | -- |
| Internal Combustion Engines | 0.05 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Solvent Usage | -- | 0.20 | -- | -- | -- | -- |
| Totals (TPY) | 31.23 | 68.18 | 57.26 | 25.46 | 4.64 | 4.46 |

Table 5.3: Federal Potential to Emit
ExxonMobil POPCO Gas Plant; PTO 13163

A. Hourly

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|------|-------|------|---------------|------|------|
| Boiler B-801A | 1.48 | 0.04 | 2.99 | 0.11 | 0.37 | 0.35 |
| Boiler B-801B | 1.48 | 0.04 | 2.99 | 0.11 | 0.37 | 0.35 |
| Stretford Tailgas Incineration | 0.20 | 0.01 | 0.41 | See SRU Below | 0.05 | 0.05 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 0.10 | 0.00 | 5.44 | 0.00 | 0.00 |
| Combined B-801A/B Stack Emissions = | 3.15 | 0.19 | 6.40 | 5.67 | 0.79 | 0.75 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 0.04 | 0.33 | 0.03 | 0.01 | 0.00 | 0.00 |
| Planned Continuous Flaring | 0.13 | 0.14 | 0.01 | 0.04 | 0.00 | 0.00 |
| Fugitive Components - Gas | -- | 12.47 | -- | -- | -- | -- |
| Tanks | -- | 14.86 | -- | -- | -- | -- |
| Internal Combustion Engines | 5.05 | 0.40 | 1.09 | 0.07 | 0.36 | 0.36 |
| Solvent Usage | -- | 0.05 | -- | -- | -- | -- |
| Totals (lb/hr) | 8.38 | 28.44 | 7.53 | 5.78 | 1.15 | 1.11 |

B. Daily

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|-------|--------|--------|--------|-------|-------|
| Boiler B-801A | 35.42 | 0.96 | 71.83 | 2.72 | 8.84 | 8.39 |
| Boiler B-801B | 35.42 | 0.96 | 71.83 | 2.72 | 8.84 | 8.39 |
| Stretford Tailgas Incineration | 4.86 | 0.13 | 9.85 | 0.00 | 1.21 | 1.15 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 2.40 | 0.00 | 130.54 | 0.00 | 0.00 |
| Combined B-801A/B Stack Emissions = | 75.70 | 4.46 | 153.51 | 135.98 | 18.88 | 17.94 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 1.07 | 7.92 | 0.75 | 0.26 | 0.01 | 0.01 |
| Planned Continuous Flaring | 3.07 | 3.28 | 0.31 | 0.88 | 0.00 | 0.00 |
| Fugitive Components - Gas | -- | 299.35 | -- | -- | -- | -- |
| Tanks | -- | 15.91 | -- | -- | -- | -- |
| Internal Combustion Engines | 10.11 | 0.80 | 2.18 | 0.13 | 0.72 | 0.72 |
| Solvent Usage | -- | 1.10 | -- | -- | -- | -- |
| Totals (lb/day) | 89.95 | 332.82 | 156.75 | 137.26 | 19.61 | 18.67 |

C. Quarterly

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|------|-------|-------|---------------|------|------|
| Boiler B-801A | 1.62 | 0.04 | 3.28 | 0.12 | 0.40 | 0.38 |
| Boiler B-801B | 1.62 | 0.04 | 3.28 | 0.12 | 0.40 | 0.38 |
| Stretford Tailgas Incineration | 0.22 | 0.01 | 0.45 | See SRU Below | 0.06 | 0.05 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 0.11 | 0.00 | 5.96 | 0.00 | 0.00 |
| Combined B-801A/B Stack Emissions = | 3.45 | 0.20 | 7.00 | 6.20 | 0.86 | 0.82 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 0.05 | 0.36 | 0.03 | 0.01 | 0.00 | 0.00 |
| Planned Continuous Flaring | 0.14 | 0.15 | 0.01 | 0.04 | 0.00 | 0.00 |
| Planned Other Flaring | 3.88 | 2.52 | 6.99 | 0.07 | 0.27 | 0.27 |
| Unplanned Other Flaring | 0.09 | 0.06 | 0.16 | 0.02 | 0.01 | 0.01 |
| Fugitive Components - Gas | -- | 13.66 | -- | -- | -- | -- |
| Tanks | -- | 0.06 | -- | -- | -- | -- |
| Internal Combustion Engines | 0.05 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Solvent Usage | -- | 0.05 | -- | -- | -- | -- |
| Totals (TPQ) | 7.67 | 17.08 | 14.22 | 6.36 | 1.16 | 1.12 |

D. Annual

| Equipment Category | NOx | ROC | CO | SOx | PM | PM10 |
|--|-------|-------|-------|-------|------|------|
| Boiler B-801A | 6.46 | 0.18 | 13.11 | 0.50 | 1.61 | 1.53 |
| Boiler B-801B | 6.46 | 0.18 | 13.11 | 0.50 | 1.61 | 1.53 |
| Stretford Tailgas Incineration | 0.89 | 0.02 | 1.80 | 0.00 | 0.22 | 0.21 |
| SRU-Stretford Tailgas Incineration/ Stretford Oxidizer Tank | 0.00 | 0.44 | 0.00 | 23.82 | 0.00 | 0.00 |
| Combined B-801A/B Stack Emissions = | 13.82 | 0.81 | 28.02 | 24.82 | 3.45 | 3.27 |
| John Zink Thermal Oxidizer ("ZTOF") | | | | | | |
| Planned Pilot/Purge Flaring | 0.19 | 1.44 | 0.14 | 0.05 | 0.00 | 0.00 |
| Planned Continuous Flaring | 0.56 | 0.60 | 0.06 | 0.16 | 0.00 | 0.00 |
| Planned Other Flaring | 15.53 | 10.10 | 27.96 | 0.26 | 1.09 | 1.09 |
| Unplanned Other Flaring | 0.18 | 0.12 | 0.32 | 0.03 | 0.01 | 0.01 |
| Fugitive Components - Gas | -- | 54.63 | -- | -- | -- | -- |
| Tanks | -- | 0.21 | -- | -- | -- | -- |
| Internal Combustion Engines | 0.05 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Solvent Usage | -- | 0.20 | -- | -- | -- | -- |
| Totals (TPY) | 30.33 | 68.13 | 56.51 | 25.34 | 4.57 | 4.39 |



**PERMIT EVALUATION FOR
PERMIT TO OPERATE AND PART 70 MINOR MODIFICATION 13163**

Page 1 of 5

1.0 BACKGROUND

- 1.1 General: The wastewater tank was previously exempt from the requirements of Rule 325, but ExxonMobil was unable to demonstrate ongoing qualification for the exemption. Therefore, ExxonMobil has controlled the tank to comply with the requirements of Rule 325.

The carbon canisters were brought into service on 12/17/2009. A source test on 12/31/2009 demonstrated compliance with the permitted emission limits.

1.2 Permit History:

| PERMIT | FINAL ISSUED | PERMIT DESCRIPTION |
|--------------------------|--------------|--|
| PT-70/Reeval 08092 R7 | 06/12/2009 | Triennial revaluation of Part-70 PTO 8092 and consolidation of all prior active permits. |
| ATC 13163 | 07/24/2009 | Dual canister system on tank T-601 |

1.3 Compliance History:

| VIOLATION TYPE | NUMBER | ISSUE DATE | DESCRIPTION OF VIOLATION |
|----------------|--------|------------|---|
| NTC | 7843 | 10/17/2003 | Failing to demonstrate compliance with an exemption from the control requirements of Rule 325 D.1 |
| NOV | 8444 | 01/04/2006 | Failing to demonstrate compliance with an exemption from the control requirements of Rule 325 D.1 |
| NOV | 9037 | 04/18/2008 | Failing to maintain the hatch on T-601 closed at all times as required by Rule 331 D.2. |

2.0 ENGINEERING ANALYSIS

- 2.1 Equipment/Processes: T-601 is a wastewater holding tank that receives water from the Sour Water Stripper (SWS) treatment system, as well as water from the boiler blowdown and boiler feed water systems.
- 2.2 Emission Controls: A dual carbon canister control system consisting of two Calgon VENTSORB canisters in series, each with 180 pounds of Calgon AP4-60 activated carbon, Calgon Centaur LAD activated carbon, or equivalent.

PERMIT EVALUATION FOR
PERMIT TO OPERATE AND PART 70 MINOR MODIFICATION 13163

Page 2 of 5

- 2.3 Emission Factors: Emissions from tanks T-601 and T-807 were estimated in PTO Mod 8092-03 using the CARB/KVB Method and assuming wastewater tanks in secondary light oil service with 85% control efficiency.

The control efficiency for T-601 was increased to 90% by ATC 13163. The revised emission factor is calculated below.

$$EF = 0.018 \text{ lb ROC/ft}^2\text{-day} \times (1-0.9) = 0.002 \text{ lb ROC/ft}^2\text{-day}$$

The emission factor of 0.018 lb ROC/ft²-day listed for Tank T-807 in table 5.1-2 was not the factor used to calculate the emission limits for Tank T-807 in Tables 5.1-3 and 5.1-4. The correct emission factor, based on 85% control efficiency, is calculated below.

$$EF = 0.018 \text{ lb ROC/ft}^2\text{-day} \times (1-0.85) = 0.003 \text{ lb ROC/ft}^2\text{-day}$$

This correction of the listed emission factor for Tank T-807 does not change the mass emission limits for Tank T-807, which are listed in Tables 5.1-3 and 5.1-4. The mass emission limits in those tables were calculated using the correct emission factor of 0.003 lb ROC/ft²-day.

- 2.4 Reasonable Worst Case Emission Scenario: The surface area of the tank is 490.87 square feet and it is assumed to be in light oil service.
- 2.5 Emission Calculations: Emissions were calculated using the CARB/KVB method. Table 5.1-1 was updated to include the surface areas for tanks T-601 and T-807.
- 2.6 Special Calculations: There are no special calculations.
- 2.7 BACT Analyses: Best Available Control Technology was not required for this project.
- 2.8 Enforceable Operational Limits: The permit has enforceable operating conditions that ensure the equipment is operated properly.
- 2.9 Monitoring Requirements: ExxonMobil will monitor the effluent of each carbon canister on a weekly basis using a portable analyzer that meets the specifications and performance criteria of EPA Method 21. The tanks will be source tested every two years in accordance with an APCD approved test plan.
- 2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the APCD.

3.0 REEVALUATION REVIEW (not applicable)

PERMIT EVALUATION FOR
PERMIT TO OPERATE AND PART 70 MINOR MODIFICATION 13163

Page 3 of 5

4.0 REGULATORY REVIEW

4.1 Partial List of Applicable Rules: This project is anticipated to operate in compliance with the following rules:

- Rule 101. Compliance of Existing Facilities
- Rule 201. Permits Required
- Rule 202. Exemptions to Rule 201
- Rule 205. Standards for Granting Permits
- Rule 302. Visible Emissions
- Rule 303. Nuisance
- Rule 309. Specific Contaminants
- Rule 310. Odorous Organic Sulfides
- Rule 325. Crude Oil Production and Separation
- Rule 326. Storage of Reactive Organic Compound Liquids
- Rule 331. Fugitive Emissions Inspection and Maintenance
- Rule 505. Breakdown Procedures
- Rule 801. New Source Review
- Rule 802. Nonattainment Review
- Rule 803. Prevention of Significant Deterioration

4.2 Rules Requiring Review:

4.2.1 *Rule 325 - Crude Oil Production and Separation:* A source test conducted November 21, 2008 indicated 0.89 tons/year of ROC emissions from tank T-601. Therefore the tank no longer qualifies for an exemption from Rule 325 per Section B.3.

The tank is controlled with two carbon canisters in series. These canisters are required to achieve at least 90% control by weight. If the inlet ROC concentration is 2000 ppmv as methane or less, an exhaust concentration of 200 ppmv as methane or less will be considered in compliance with the control requirements of this rule. The canisters will be monitored weekly and source tested once every two years to confirm Rule 325 compliance. ExxonMobil must inspect the roof of the tank at least once every five years.

4.2.2 *Rule 326 – Storage of Reactive Organic Compound Liquids:* Because the tank is subject to Rule 325, it is not subject to Rule 326, per Section B.1.c.

4.2.3 *Rule 802 - Nonattainment Review:* The APCD is currently designated nonattainment for the state ozone and PM₁₀ standards. The provisions of this rule apply to ozone precursor pollutants (NO_x and ROC), PM₁₀ and PM₁₀ precursor pollutants (NO_x, ROC and SO_x).

BACT – The potential to emit of this project is zero, therefore BACT is not required.

PERMIT EVALUATION FOR
PERMIT TO OPERATE AND PART 70 MINOR MODIFICATION 13163

Page 4 of 5

There is no NEI associated with this project, therefore an Air Quality Impact Analysis (AQIA) is not required.

Emission offsets (§E) are not triggered for NO_x, ROC, and PM₁₀.

- 4.3 NEI Calculations: The net emission increase calculation is used to determine whether certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). This permit does not contribute to the NEI and so the NEI for this permit is zero.

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

6.0 OFFSETS/ERCs

- 6.1 Offsets: The emission offset thresholds of Regulation VIII are not exceeded.

- 6.2 ERCs: This source does not generate emission reduction credits.

7.0 AIR TOXICS

An air toxics health risk assessment was not performed for this permitting action.

8.0 CEQA / LEAD AGENCY

This project is exempt from CEQA pursuant to the Environmental Review Guidelines for the Santa Barbara County APCD (revised November 16, 2000). Appendix A (*APCD Projects Exempt from CEQA and Equipment or Operations Exempt from CEQA*) provides an exemption specifically for permits to operate. No further action is necessary.

9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 was not required.

10.0 PUBLIC and AGENCY NOTIFICATION PROCESS/COMMENTS ON DRAFT PERMIT

- 10.1 This project was not subject to public notice.

- 10.2 The permittee's comments and the APCD's responses are attached.

11.0 FEE DETERMINATION



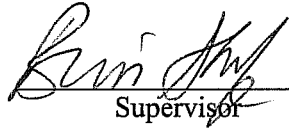
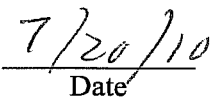
Fees for the APCD's work effects are assessed on a fee basis. The Project Code is 300500 (*Oil and Gas Plant*). See the *Fee Statement Attachment* for the fee calculations.

PERMIT EVALUATION FOR
PERMIT TO OPERATE AND PART 70 MINOR MODIFICATION 13163

Page 5 of 5

12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

| | | | |
|--|--|---|--|
|  _____ AQ Engineer/Technician |  _____ Date |  _____ Supervisor |  _____ Date |
|--|--|---|--|

13.0 ATTACHMENT(S)

- Emission Tables
- Fee Statement
- Comments on the Draft Permit

Permit to Operate and Part 70 Minor Modification 13163

PERMIT POTENTIAL TO EMIT

| | NO _x | ROC | CO | SO _x | PM | PM ₁₀ |
|--------|-----------------|------|----|-----------------|----|------------------|
| lb/day | 0 | 0.98 | 0 | 0 | 0 | 0 |
| lb/hr | | | | | | |
| TPQ | | | | | | |
| TPY | 0 | 0.18 | 0 | 0 | 0 | 0 |

FACILITY POTENTIAL TO EMIT

| | NO _x | ROC | CO | SO _x | PM | PM ₁₀ |
|--------|-----------------|--------|--------|-----------------|-------|------------------|
| lb/day | 94.89 | 333.19 | 160.88 | 137.95 | 19.98 | 19.98 |
| lb/hr | | | | | | |
| TPQ | | | | | | |
| TPY | 31.23 | 68.20 | 57.26 | 25.47 | 4.64 | 4.46 |

FACILITY NEI90

| | NO _x | ROC | CO | SO _x | PM | PM ₁₀ |
|--------|-----------------|-------|--------|-----------------|------|------------------|
| lb/day | 6.98 | 16.32 | 132.77 | 70.22 | 1.32 | 1.32 |
| lb/hr | | | | | | |
| TPQ | | | | | | |
| TPY | 0.04 | 2.94 | 22.98 | 12.92 | 0.08 | 0.08 |

Notes:

- (1) Emissions in these tables are from IDS.
- (2) Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

FEE STATEMENT

PTO No. 13163

FID: 03170 POPCO / SSID: 01482



Device Fee

| Device No. | Device Name | Fee Schedule | Qty of Fee Units | Fee per Unit | Fee Units | Max or Min. Fee Apply? | Number of Same Devices | Pro Rate Factor | Device Fee | Penalty Fee? | Fee Credit | Total Fee per Device |
|------------|---------------------------------|--------------|------------------|--------------|------------------|------------------------|------------------------|-----------------|-----------------|---------------|---------------|----------------------|
| 103103 | Waste Liquid Storage Tank (601) | A6 | 91.800 | 3.36 | Per 1000 gallons | No | 1 | 1.000 | 308.45 | 0.00 | 0.00 | 308.45 |
| | Device Fee Sub-Totals = | | | | | | | | \$308.45 | \$0.00 | \$0.00 | \$308.45 |
| | Device Fee Total = | | | | | | | | | | | |

Permit Fee

Fee Based on Devices

308.45

Fee Statement Grand Total = \$308

Notes:

- (1) Fee Schedule Items are listed in APCD Rule 210, Fee Schedule "A".
- (2) The term "Units" refers to the unit of measure defined in the Fee Schedule.



**Santa Barbara County
Air Pollution Control District**

Our Vision  Clean Air

JUL 23 2010

Certified Mail 7009 2250 0004 4638 2729
Return Receipt Requested

Kevin Bailey
ExxonMobil Production Company
PO Box 4358-Corp MI 3041
Houston, TX 77210-4358

FID: 03170
Permit: P 13163
SSID: 01482

Re: Final Permit to Operate 13163
Fee Due: \$ 308

Dear Mr. Bailey:

Enclosed is the final Permit to Operate (PTO) No. 13163 for a dual carbon canister system on Tank T-601 at 12000 Calle Real in Goleta.

Please carefully review the enclosed documents to ensure that they accurately describe your facility and that the conditions are acceptable to you. Note that your permitted emission limits may, in the future, be used to determine emission fees.

You should become familiar with all APCD rules pertaining to your facility. This permit does not relieve you of any requirements to obtain authority or permits from other governmental agencies.

This permit requires you to:

- Pay a fee of \$308, which is due immediately and is considered late after 30 calendar days from the date stamped on the permit. Pursuant to APCD Rule 210.IV.B, no appeal shall be heard unless all fees have been paid. See the attached invoice for more information.
- Follow the conditions listed on your permit. Pay careful attention to the recordkeeping and reporting requirements.
- Ensure that a copy of the enclosed permit is posted or kept readily available near the permitted equipment.
- Promptly report changes in ownership, operator, or your mailing address to the APCD.

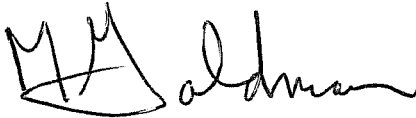
If you are not satisfied with the conditions of this permit, **you have thirty (30) days from the date of this issuance to appeal this permit to the Air Pollution Control District Hearing Board** (ref: California Health and Safety Code, §42302.1). Any contact with APCD staff to discuss the terms of this permit will not stop or alter the 30-day appeal period.

Terence E. Dressler • Air Pollution Control Officer

260 North San Antonio Road, Suite A • Santa Barbara, CA • 93110 • www.sbapcd.org • 805.961.8800 • 805.961.8801 (fax)

Please include the facility identification (FID) and permit numbers as shown at the top of this letter on all correspondence regarding this permit. If you have any questions, please contact Ben Ellenberger of my staff at (805) 961-8879.

Sincerely,

A handwritten signature in black ink, appearing to read "M Goldman", with a stylized flourish at the end.

Michael Goldman, Manager
Engineering & Compliance Division

enc: Final PTO 13163
 Final Permit Evaluation
 Invoice # P 13163
 Air Toxics "Hot Spots" Fact Sheet APCD Form 12B

cc: POPCO 03170 Project File SC
 ECD Chron File
 Accounting (Invoice only)
 Craig Strommen (Cover letter only)
 Ms. Katie Wilson, ExxonMobil Production Company

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**Santa Barbara County
Air Pollution Control District**

Post Office Box 6447
Santa Barbara, CA 93160-6447

Invoice: P 13163

Date:

Terms: Net 30 Days

300500/6600/3280

INVOICE

BILL TO:

Kevin Bailey
ExxonMobil Production Company (102142)
PO Box 4358-Corp-MI-3039
Houston, TX 77210-4358

FACILITY:

POPCO
03170
12000 Calle Real
Goleta

Permit: Permit to Operate (PTO) No. 13163

Fee Type: Permit Evaluation Fee (see the Fee Statement in your permit for a breakdown of the fees)

Amount Due: \$ 308

REMIT PAYMENTS TO THE ABOVE ADDRESS

Please indicate the invoice number P 13163
on your remittance.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR INVOICE PLEASE CONTACT
OUR ADMINISTRATION DIVISION AT (805) 961-8800

The APCD charges \$25 for returned checks. Other penalties/fees may be incurred as a result of returned checks and late payment (see APCD Rule 210). Failure to pay this Invoice may result in the cancellation or suspension of your permit. Please notify the APCD regarding any changes to the above information